

## CERTIFICATE OF APPROVAL No CF 5973

This is to certify that, in accordance with TS00 General Requirements for Certification of Fire Protection Products The undermentioned products of

## **Abloy Oy**

Wahlforssinkatu 20, Fin-80101 Joensuu, Finland Tel: +358 20 599 2501

Have been assessed against the requirements of the Technical Schedule(s) denoted below and are approved for use subject to the conditions appended hereto:

**CERTIFIED PRODUCT** 

EL520 Motor Locks and EL560 TS81 - The Contribution Of Solenoid Locks Electromechanically Opera

**TECHNICAL SCHEDULE** 

TS81 - The Contribution Of Electromechanically Operated Locks And Strikes To The Performance Of Fire Resisting Doorsets

Signed and sealed for and on behalf of Warringtonfire Testing and Certification Limited

Paul Duggan

**Certification Manager** 







### Abloy Oy - EL520 Motor Locks and EL560 Solenoid Locks

- 1. This approval relates to the following specific electromechanically operated locks:
  - EL520 Motor lock
  - EL560 Solenoid lock

Both locks incorporates a 235 mm x 20 mm or 24 mm steel forend, a 168.5 mm x 16.5 mm or 16.6 mm thick case with a backset size of either 55, 60, 65, 80 or 100 mm, a double action steel latchbolt with a 10 mm throw, and a steel deadbolt.

- 2. This certification is provided to the client for their own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.
- 3. This approval relates to the use of the above locks/latches in contributing to the fire resistance performance of timber or mineral-based doorsets and predominantly steel-based flush doorsets, as defined in BS EN 1634-1 or BS 476: Part 22: 1987.
- 4. This approval relates to their use with the following door assemblies:-

Latched and unlatched, intumescent sealed door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores in timber frames having a fire resistance of 30 minutes or 60 minutes only (Code ITT).

Latched and unlatched, door assemblies consisting of uninsulated or insulated predominantly steel leaves, hung in steel frames with or without intumescent seals having a fire resistance up to 120 minutes (Code IMM/MM).

- 5. The locks are approved on the basis of:
  - i) Initial type testing to EN 1634-1 and EN 14846
  - ii) An appraisal against TS81
  - iii) Certification of quality management system.
  - iv) Inspection and surveillance of factory production control
  - v) On-going audit testing in accordance with TS81 requirements

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6. The electromechanically operated locks should only be used with door assemblies of proven fire resistance (as defined in BS EN 1634-1 or BS 476: part 22: 1987) with similar size locks and strikeplates, the critical aspects of the ITT doorset construction are considered to be the material of the door frame, the leaf to frame clearance gaps and the lipping material. Attention should be paid to these details and these should not be amended from that previously fire tested. The following minimum specification will be followed:

#### Timber-based assemblies:

- Door frame density 450 kg/m³ (30 minutes), 640 kg/m³ (60 minutes)
- ii) Door leaves shall have a minimum thickness of 44 mm for 30 minute applications and 54 mm for 60 minute applications.
- Lipping density 640 kg/m<sup>3</sup>.

#### Steel-based assemblies (Code MM/IMM)

- Door leaves shall have a minimum thickness of 44 mm for up to 120 minute i) applications.
- ii) No additional intumescent protection is required.
- 7. When fitted to insulated timber or mineral-based door assemblies the required intumescent protection will be as follows:
  - There is no requirement for any intumescent protection to be provided for 30 i) minute applications.
  - The required protection for all 60 minute applications the lock case shall be ii) wrapped with a 2 mm thickness of Interdens mono ammonium phosphate to all faces and a 2 mm thickness of the same material shall be provided behind the entire length of the forend, and behind the strike plate.

Note: Failure to install the above protection will invalidate this certificate.

8. The electromechanically operated locks and their associated strikeplates and keeps may only be fitted in the manner described in this certificate and subject to any limitations on the inclusion of electromechanically operated locks specified for the door leaf. This approval is applicable only to the specified electromechanically operated locks used with door assemblies of proven fire resistance (as defined in BS EN 1634-1).

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### Abloy Oy - EL520 Motor Locks and EL560 Solenoid Locks

- 9. The doorset shall have suitable supporting test evidence for any conduit and door loop required to connect the electrical lock elements.
- 10. EN1634-1 was issued originally in 2000, with amended versions issued in 2008, 2014 and 2018. The differences between each version are mainly procedural and are not considered to have a practical impact on the performance of the samples under test. On this basis this evaluation is consider applicable to all versions of EN1634-1 issued prior to the issue of this certificate.
- 11. Where self-closing is a requirement, an EN1154 or EN1155 closer with a minimum power size 4 shall be fitted to ensure the self-closing mechanism is capable of overcoming the latch function and returning the door leaf to the fully closed position. A higher power size may be necessary for wider doors and door assemblies incorporating additional smoke or environmental seals.
- 12. The effectiveness and electrical safety of this electrically operated lock is outside the scope of this certification.
- 13. Electromechanically operated locks shall only be fitted using the fixings supplied by the manufacturer.
- 14. Lock assemblies not incorporating a latching mechanism shall only be fitted to proven unlatched door assemblies.
- 15. The locks/latches should not be fitted higher than 1100 mm from the spindle to the finished floor level of the surrounding floors.
- 16. Cylinders shall only be fitted to doors which have previously been shown capable of accommodating the installation of cylinder locks without detriment to the doorset's performance.



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- 17. The mortice locks may incorporate PZ Europrofile cylinders as follows:
  - i) Single cylinder
  - ii) Double cylinder\*
  - iii) Cylinder and thumbturn\*
  - iv) Brass or steel cylinders

Note: The hole in the door face shall follow the shape of the cylinders and be as tight as possible; furthermore the single cylinders door preparation will penetrate through only half the thickness of the door leaf).

\*Not approved for use with ITT30 minute timber based doorsets.

- 18. The spindle hole through the door shall be a maximum of 15 mm diameter unless the doorset has test evidence that proves spindle holes of a greater size than this.
- 19. Recessing for locks shall result in a tight fit, allowing for any intumescent protection where required. Mortices for the latchbolt and deadbolt behind the strikeplate shall be as small as possible.
- 20. The locks may not be fitted to timber doorsets without perimeter intumescent fire seals to the frame rebate or door edge.
- 21. Timber doorsets shall be installed in accordance with BS 8214.
- 22. The approval relates to on-going production. Product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

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23. The following table shows the acceptable doorset types and fire resistance periods:

	Approved Door Type					
Class	IMM	MM	ITT	ITM	ITC	
FD20	✓	$\checkmark$	×	×	×	
FD30	✓	✓	✓	×	×	
FD60	✓	$\checkmark$	✓	×	×	
FD90	✓	$\checkmark$	×	×	×	
FD120	✓	✓	×	×	×	
FD240	×	×	×	×	×	
E 20	✓	✓	×	×	×	
EI 20	✓	✓	×	×	×	
E 30	✓	✓	✓	×	×	
EI 30	✓	✓	✓	×	×	
E 60	✓	$\checkmark$	$\checkmark$	×	×	
EI 60	✓	$\checkmark$	✓	×	×	
E 90	×	×	×	×	×	
EI 90	×	×	×	×	×	
E 120	×	×	×	×	×	
EI 120	×	×	×	×	×	
E 240	×	×	×	×	×	
EI 240	×	×	×	×	×	

#### Kev:

✓ - approved

Not approved



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24. Doors are classified as the following types:

**Code ITT** - 20 minute to 120 minute doorsets containing intumescent seals and consisting of timber faced and edged leaves with timber, cellulosic or mineral cores, hung in timber-based frames.

**Code ITM** - 20 minute to 120 minute doorsets containing intumescent seals and consisting of timber faced and edged leaves with timber, cellulosic or mineral cores, hung in steel frames.

**Code ITC** - 20 minute to 120 minute doorsets containing intumescent seals and consisting of timber faced and edged leaves with timber, cellulosic or mineral cores, hung in proprietary composite frames, of which the principal material is other than timber or metal but which may include any other materials.

**Code MM** - 20 to 240 minute doorsets consisting of uninsulated or insulated predominantly steel leaves, hung in steel frames without intumescent seals.

**Code IMM** - 20 to 240 minute doorsets consisting of uninsulated or insulated predominantly steel leaves, hung in steel frames with intumescent seals.

#### **Classification codes**

Classification to EN 14846 - all lock cases and configurations:

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### Scope of approval

- The locks may not be fitted to timber/mineral-based doorsets without perimeter intumescent fire seals fitted with the frame rebate or door edge.
- ITT door leaves shall have solid lignocellulosic construction in the lock area encompassing the entire lock case and reader.



### Abloy Oy - EL520 Motor Locks and EL560 Solenoid Locks

#### Scope of approval - Cont'd:

• The EL520 and EL560 are approved for use with the following specific strikeplates:

EA321	EA328		
EA322	EA329		
EA324	EA330		
EA325	EA331		
EA326	EA332		
EA327	EA323		

#### **Further Information**

Further information regarding the details contained in this certificate may be obtained from ABLOY Oy (Tel: +358 20 599 2501).

Further information regarding CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).